

Amendments to the Claims

1. (currently amended) A system for call processing, comprising:

a telephone call receiving switch configured to receive incoming calls,  
~~wherein the telephone call receiving switch is further configured prior to~~  
~~answering a call to detect and pass out of band call destination information~~  
 comprising Dialed Number Identification Service (DNIS) information associated  
 with ~~the~~ an incoming call prior to answering the incoming call;

an IVR unit adapted to perform an audio script, ~~said~~ wherein the IVR unit  
is in electronic communication with said telephone call receiving switch, wherein  
the IVR unit has a plurality of ports, wherein the IVR unit is configured to  
provide a plurality of applications at each port of the plurality of ports, wherein  
the IVR unit is further configured to answer the incoming call at any available  
port of the plurality of ports, wherein the IVR unit is configured to receive the  
out-of-band call destination information before answering the incoming call;

a server computer in electronic communication with said telephone call  
 receiving switch for receiving the out-of-band call destination information from  
~~the telephone call receiving switch and in,~~ wherein the server computer is further  
in electronic communication with said IVR unit, ~~for forwarding the out of band~~  
~~call destination information to said IVR before the call arrives at a port of said~~  
~~IVR~~ wherein the server computer is configured to forward the out-of-band call  
destination information to the IVR unit before the incoming call is answered at a  
first port of the plurality of ports of the IVR unit;

a network structure in electronic communication with said telephone call  
receiving switch, said IVR unit, and said server computer, wherein the network  
structure provides communication between the telephone call receiving switch  
and the server computer, between the telephone call receiving switch and the IVR  
unit, and between the server computer and the IVR unit; and

a port sharing data interface processing (DIP) program in operation with  
 said IVR unit, wherein said DIP program is adapted to enable said script to be  
performed on multiple ports of said IVR unit, wherein the IVR unit is configured

to select an application from the plurality of applications to provide on the first port of the plurality of ports in accordance with the DIP program prior to answering the incoming call at the first port of the plurality of ports, wherein the application is selected in accordance with the out-of-band call destination information received by the IVR unit.

2. (currently amended) The system of claim 1, wherein the DIP program dynamically allocates scripts to ports of the IVR unit.
3. (currently amended) The system of claim 1, wherein the system manages IVR unit port state before, during, and after a call.
4. (currently amended) The system of claim 1, wherein a single list of DNIS numbers resides at said IVR unit.
5. (currently amended) A system comprising:
  - a plurality of telephone call receiving switches, wherein each telephone call receiving switch of the plurality of telephone call receiving switches is configured prior to answering a call to detect and pass out of band call destination information comprising Dialed Number Identification Service (DNIS) information associated with the an incoming call prior to answering the incoming call;
  - a plurality of multiple port ~~IVR's~~ IVR units adapted to play a plurality of scripts at each port of the multiple ports, wherein the IVR units are in electronic communication with said plurality of telephone call receiving switches, wherein each IVR unit of the plurality of IVR units is configured to answer an incoming call at any available port of the respective multiple ports, wherein each IVR unit of the plurality of IVR units is configured to receive out-of-band call destination information before answering an incoming call;

at least one server computer in electronic communication with said plurality of telephone call receiving switches for receiving the out-of-band call destination information from the plurality of telephone call receiving switches and, wherein the at least one server is further in electronic communication with said ~~IVR's~~plurality of IVR units, wherein said at least one server is configured to associate one of said plurality of scripts to the out-of-band call destination information;

a network structure facilitating electronic communication between said ~~IVR's~~plurality of IVR units and said plurality of telephone call receiving switches, between said plurality of IVR units and said at least one server, and between said plurality of telephone call receiving switches and said at least one server; and

a port sharing data interface processing program in operation with ~~IVR's~~ the plurality of IVR units, whereby each port of each IVR unit is monitored to determine its availability to receive a call, to request call destination information from said server via said network structure, and to play at least one of said scripts~~the one of said plurality of scripts associated with the out-of-band call destination information by the at least one server~~ to a caller.

6. (currently amended) A method of handling a plurality of telephone calls received at a private branch switch (PBX) to efficiently use a plurality of ports of an interactive voice response (IVR) unit to provide a selected one of a plurality of applications, the method comprising:

in response to receiving a call at the PBX, passing call destination information comprising Dialed Number Identification Service (DNIS) information associated with the call out of band to the IVR unit before the call arrives at a port of said IVR unit, wherein the IVR unit is in communication with the PBX;

identifying an application from the plurality of applications, wherein the act of identifying comprises associating the call destination information ~~associated with the call destination information~~ with the identified application,

wherein the IVR unit is configured to provide each of the plurality of applications at any port of the plurality of ports;

selecting a port of the IVR unit for receiving the call, wherein the port is selected irrespective of the call destination information;

assigning the call to a selected one of the plurality of ports~~the selected port~~ of the IVR unit;

receiving the call at the selected port of the IVR unit after the IVR unit has received the out of band call destination information and after the application associated with the out of band call destination information has been identified;  
and

in response to receiving the call at the IVR unit, executing the identified application at the selected port.

7. (currently amended) A method of handling a plurality of telephone calls received at a private branch switch (PBX) to efficiently use a plurality of ports of an interactive voice response (IVR) unit to provide a selected one of a plurality of applications, the method comprising:

in response to receiving a call at the PBX, ~~passing call destination information to the IVR by detecting~~ information associated with the call, wherein the information associated with the call comprises Dialed Number Identification Service (DNIS) and Automatic Number Identification (ANI) associated with the call[[,]];

passing the DNIS and ANI out of band to the IVR unit before the call arrives at a port of said IVR unit, wherein the IVR unit is in communication with the PBX, and answering the call at the PBX;

identifying an application associated with the ~~call destination information~~DNIS and the ANI, wherein the act of identifying is performed before ringing associated with the call is detected by the IVR unit;

selecting a port of the IVR unit for receiving the call, wherein the port is selected irrespective of the DNIS or ANI;

assigning the call to a ~~selected one of the plurality of~~ selected port[[s]] of the IVR unit; and

in response to receiving the call at the IVR unit, executing the application at the selected port.

8. (currently amended) A method of handling a plurality of telephone calls received at a private branch switch (PBX) to efficiently use a plurality of ports of an interactive voice response (IVR) unit to provide a selected one of a plurality of applications, the method comprising:

in response to receiving a call at the PBX, passing call destination information comprising Dialed Number Identification Service (DNIS) information associated with the call to the IVR unit before the call arrives at a port of said IVR[[,]];

~~identifying an application associated with the call destination information by associating each of a plurality of call destinations [[to]] with a one corresponding application of [[a]] the plurality of applications, wherein the IVR unit is configured to provide each application of the plurality of applications at any available port of the IVR unit[[,]];~~

storing the associations between each of the plurality of call destinations and each corresponding application of a plurality of applications[[,]]; ~~and~~

in response to receiving the call destination information at the IVR unit, looking up the call destination of the call received at the PBX in the stored associations;

identifying an application associated with the received call destination information in accordance with the stored associations;

assigning the call to a selected one of the plurality of ports of the IVR unit, wherein the port is selected irrespective of the call destination; ~~and~~

receiving the call at the selected port of the IVR unit; and

in response to receiving the call at the IVR unit, executing the application at the selected port.

9. (currently amended) The method of claim 8, wherein the act of passing call destination information to the IVR unit further comprises:

detecting Dialed Number Identification Service (DNIS) and Automatic Number Identification (ANI) associated with the call;

passing the DNIS and ANI out of band to the IVR unit before the call arrives at a port of said IVR unit; and

answering the call at the PBX.

10. (currently amended) A system for call processing, comprising:

a telephone call receiving switch having a plurality of channels, wherein the telephone call receiving switch is configured to detect call destination information comprising Dialed Number Identification Service (DNIS) information associated with an incoming call, wherein the telephone call receiving switch is further configured to assign the incoming call to a selected one of [[a]]the plurality of channels, wherein the telephone call receiving switch is further configured to pass the call destination information out of band to the selected channel, wherein the telephone call receiving switch is further configured and to answer the incoming call;

a table containing a plurality of call destination records associated with a plurality of applications, wherein each call destination record of the plurality of call destination records is associated with at least one corresponding application of the plurality of applications;

a server apparatus in data communication with said table and said telephone call receiving switch, wherein the server apparatus is configured to receive the call destination information out of band, wherein the server apparatus is configured and responsive to the out of band call destination information to identify an associated application from the plurality of applications with reference to the table and to a call identifier to the incoming call in response to receiving the call destination information;

an IVR unit that includes a port in telephony communication with the selected channel of the telephone call receiving switch, ~~[[and]]~~ wherein the IVR unit is further in data communication with the server apparatus, the IVR including a port sharing data interface processing program responsive to the detected call destination information and incoming call reaching said port to access said associated program to perform on the selected port, the IVR unit being further configured to access said associated program before the call arrives at said port.

11. (currently amended) The system of claim 10, wherein the telephone call receiving switch is further configured to detect call origination information of the incoming call, wherein the associated application ~~comprising~~ comprises an audio script, the system further comprising:

a scripter configured to prepare a script responsive to said call origination information.

12. (currently amended) The system of claim 1, wherein said telephone call receiving switch is further configured to detect and pass out of band ~~call destination information~~ further comprising Automatic Number Identification (ANI) associated with the call.

13. (new) The system of claim 1, wherein the telephone call receiving switch comprises a private branch exchange (PBX).

14. (new) The system of claim 1, wherein the telephone call receiving switch is further configured to inform the server computer when the call has been answered by the IVR unit.

15. (new) The system of claim 1, wherein the IVR unit is further configured to detect ringing associated with the incoming call, wherein the IVR unit is further configured to request the call destination information in response to the detection of the ringing associated with the incoming call.

16. (new) The system of claim 1, wherein the out of band call destination information further comprises an Automatic Call Distributor (ACD) extension.
17. (new) The system of claim 1, wherein the IVR unit is further configured to cache at least a portion of the call destination information.
18. (new) The system of claim 5, wherein at least a portion of the plurality of telephone call receiving switches comprises at least one private branch exchange (PBX).